



ADEQ Inventory No.	100508	Permit No.	AZ0024597
LTF No.	74867	Place ID No.	932

## AUTHORIZATION TO DISCHARGE UNDER THE ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Article 2.1; the Federal Water Pollution Control Act, (33 USC§1251 et. seq., as amended), and Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 9 and 10, and amendments thereto,

ASARCO LLC  
ASARCO LLC, Mission Complex  
4201 West Pima Mine Road  
Sahuarita, AZ 85629

is authorized to discharge stormwater (at all outfalls) and mine drainage (at outfalls 003G and 004I) associated with mining activities from the ASARCO LLC Mission Complex located in Sahuarita in Pima County, Arizona to unnamed washes, tributary to the Santa Cruz River in the Santa Cruz Basin at:

Outfall No.	Latitude	Longitude	Legal
003G – Runoff from Tailings Facilities No. 6 & 7	31° 58' 30" N	110° 59' 88" W	Township 17 S, Range 13 E, Section 10
004I – Runoff from Tailings Facility No. 8	31° 57' 40" N	110° 59' 77" W	Township 17 S, Range 13 E, Section 15
007H – Runoff from Tailings Facility No. 6, access road, South Pima and Mineral Hill Waste Rock Dumps, and downstream catchment basins	31° 57' 55" N	110° 59' 94" W	Township 17 S, Range 13 E, Section 10

in accordance with discharge limitations, monitoring requirements and other conditions set forth herein, and in the attached "Standard AZPDES Permit Conditions."

Annual Registration Fee [A.R.S. 49-255.01 and A.A.C. R18-14-104]

The annual registration fee for this permit is payable to ADEQ each year. For the purposes of the annual fees, this permit is a Major permit.

This permit shall become effective on \_\_\_\_\_, 2019.

This permit and the authorization to discharge shall expire at midnight, \_\_\_\_\_, 2024.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_  
Trevor Baggio, Director  
Water Quality Division  
Arizona Department of Environmental Quality

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**PART I – DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

**A. Discharge Limitations and Monitoring Requirements**

The permittee is authorized to discharge mine process water, mine drainage, and stormwater from Outfalls 003G and 004I. A discharge resulting from a storm event less than a 100-year, 24-hour storm event is prohibited unless the discharge meets the Stormwater Exemption Special Condition in Part IV.B of the permit below. All discharges from Outfalls 003G and 004I shall be limited and monitored as specified in Table 1.a which follows:

Table 1.a – Discharge Limitations and Monitoring Requirements for Outfalls 003G and 004I

Parameter	Maximum Allowable Discharge Limitations (5)	Monitoring Requirement	
	Daily Maximum Concentration Limits	Monitoring Frequency (1)	Sample Type (1)
Discharge Flow ( MGD) (2)	(3)	Daily during discharge	Measured (3)
Copper (total recoverable) (5)	86 ug/L	1x /discharge event	Discrete
Lead (total recoverable) (5)	22 ug/L	1x /discharge event	Discrete
Zinc (total recoverable) (5)	3600 ug/L	1x /discharge event	Discrete
Hardness (5)	Report [mg/L]	1x /discharge event	Discrete
pH (6)	Not less than 6.5 standard units (S.U.) nor greater than 9.0 S.U.	1x /discharge event	Discrete

**Footnotes**

- 1 Except for flow, the measuring frequency and sample type for intermittent flows from all outfalls shall consist of grab samples resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the end of the previous storm event of at least 0.1 inches in magnitude. Samples shall be collected during the first hour of the discharge if practicable. See Part I.F.
- 2 MGD = Million gallons per day.
- 3 Monitoring and reporting required. No limit set at this time.
- 4 Flow rates shall be determined as specified in Part I.F.2 below
- 5 These discharge limitations are based on the maximum allowable hardness value of 400 mg/L as CaCO<sub>3</sub>. The discharge shall be tested for hardness at the same time that these metal samples are taken. Please see the hardness definition in Appendix A. Part B.
- 6 pH shall be measured at the time of sampling and does not require use of a certified laboratory. Measurements shall be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.

The Permittee shall limit and monitor discharges from Outfall 007K as specified in Table 1.b which follows.

Table 2.b - Discharge Limitations and Monitoring Requirements for Outfall 007K

Parameter	Maximum Allowable Discharge Limitations (5)	Monitoring Requirement	
	Daily Maximum Concentration Limits	Monitoring Frequency (1)	Sample Type (1)
Discharge Flow ( MGD) (2)	(3)	Daily during discharge	Measured (4)
Chromium, Total (total recoverable)(5)	100 ug/L	1x /discharge event	Discrete
Copper (total recoverable) (5)	86 ug/L	1x /discharge event	Discrete
Lead (total recoverable) (5)	22 ug/L	1x /discharge event	Discrete
Zinc (total recoverable) (5)	3600 ug/L	1x /discharge event	Discrete
Hardness (5)	Report [mg/L]	1x /discharge event	Discrete
pH (6)	Not less than 6.5 standard units (S.U.) nor greater than 9.0 S.U.	1x /discharge event	Discrete

**Footnotes**

- 1 Except for flow, the measuring frequency and sample type for intermittent flows from all outfalls shall consist of grab samples resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the end of the previous storm event of at least 0.1 inches in magnitude. Samples shall be collected during the first hour of the discharge if practicable. See Part I.F.
- 2 MGD = Million gallons per day.
- 3 Monitoring and reporting required. No limit set at this time.
- 4 Flow rates shall be determined as specified in Part I.F.2 below
- 5 These discharge limitations are based on the maximum allowable hardness value of 400 mg/L as CaCO<sub>3</sub>. The discharge shall be tested for hardness at the same time that these metal samples are taken. Please see the hardness definition in Appendix A. Part B.
- 6 pH shall be measured at the time of sampling and does not require use of a certified laboratory. Measurements shall be obtained in accordance with the applicable method and must meet all method quality assurance/quality control requirements to be considered valid data.

**B. Additional Discharge Monitoring**

The permittee shall monitor discharges from Outfalls 003G, 004I, and 007H as specified in Table 2.a and 2.b. Monitoring results above the Assessment Levels (ALs) listed below do not constitute a permit violation, but may trigger evaluation of Reasonable Potential (RP) by ADEQ. The permittee shall use an approved analytical method with a Limit of Quantitation (LOQ) lower than the AL values as described in Part II.A.4.

Table 3.a – Additional Discharge Monitoring Requirements for Outfalls 003G and 004I

Parameter	Assessment Levels (1)	Monitoring Requirements	
	Daily Maximum	Monitoring Frequency	Sample Type
Arsenic (total recoverable) (2)	440 ug/L	1x /discharge event	Discrete
Cadmium (total recoverable) (2)	290 ug/L	1x /discharge event	Discrete
Chromium, Total (total recoverable) (2)	100 ug/L	1x /discharge event	Discrete
Chromium VI (dissolved)	34 ug/L	1x /discharge event	Discrete
Mercury (total recoverable) (2)	5 ug/L	1x /discharge event	Discrete
Selenium (total recoverable) (2)	33 ug/L	1x /discharge event	Discrete
Hardness	Report [mg/L]	1x /discharge event	Discrete

**Footnotes**

- 1 Concentration values are calculated based on Arizona Water Quality Standards. Monitoring and reporting required. Assessment levels listed are based on the maximum allowable hardness value of 400 mg/L as CaCO<sub>3</sub>. The discharge shall be tested
- 2 for hardness at the same time that these metal samples are taken. Please see the hardness definition in Appendix A. Part B.

Table 4.b – Additional Discharge Monitoring Requirements for Outfall 007H

Parameter	Assessment Levels (1)	Monitoring Requirements (2)	
	Daily Maximum	Monitoring Frequency	Sample Type
Arsenic (total recoverable) (2)	440 ug/L	1x /discharge event	Discrete
Cadmium (total recoverable) (2)	290 ug/L	1x /discharge event	Discrete
Chromium VI (dissolved) (2)	34 ug/L	1x /discharge event	Discrete
Mercury (total recoverable) (2)	5 ug/L	1x /discharge event	Discrete
Selenium (total recoverable)	33 ug/L	1x /discharge event	Discrete
Hardness	Report [mg/L]	1x /discharge event	Discrete

**Footnotes**

- 1 Concentration values are calculated based on Arizona Water Quality Standards. Monitoring and reporting required.
- 2 Assessment levels listed are based on the maximum allowable hardness value of 400 mg/L as CaCO<sub>3</sub>. The discharge shall be tested for hardness at the same time that these metal samples are taken. Please see the hardness definition in Appendix A. Part B.

**C. Internal Monitoring Point (IMP) – 005K**

The permittee shall monitor discharges at Internal Monitoring Point (IMP) 005K at the following location. The monitoring requirements for IMP 005K are specified in Table 3.

Internal Outfall	Latitude and Longitude	Legal
005K – Runoff from South Pima and Mineral Hill Waste Rock Dumps	Latitude: 31° 57' 50"N Longitude: 111° 3' 73" W	Township 17 S, Range 13 E, Section 7

No limits or ALs are established, but the reporting level shall be low enough to allow comparison of the results to any applicable water quality standards. If a reporting level below the applicable water quality standards cannot be achieved, then the permittee shall use the method with the lowest method-specific MDL, as defined in Appendix A of this permit.

Table 5 – Monitoring Requirements for IMP 005K

Parameter	Reporting Units	Monitoring Requirement (2)	
		Monitoring Frequency (1)	Sample Type (1)
Flow	MGD (3)	Daily during discharge	Measured (4)
Arsenic (total recoverable)	ug/L	1x/discharge event	Discrete
Cadmium (total recoverable)	ug/L	1x/discharge event	Discrete
Chromium (total recoverable)	ug/L	1x/discharge event	Discrete
Chromium VI (dissolved)	ug/L	1x/discharge event	Discrete
Copper (total recoverable)	ug/L	1x/discharge event	Discrete
Lead (total recoverable)	ug/L	1x/discharge event	Discrete
Mercury (total recoverable)	ug/L	1x/discharge event	Discrete
Selenium (total recoverable)	ug/L	1x/discharge event	Discrete
Zinc (total recoverable)	ug/L	1x/discharge event	Discrete

**Footnotes**

- 1 Monitoring and reporting required. No limits or ALs set at this time.
- 2 Except for flow, the measuring frequency and sample type for intermittent flows from all outfalls shall consist of grab samples resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the end of the previous storm event of at least 0.1 inches in magnitude. Samples shall be collected during the first hour of the discharge, if practicable. See Part I.F.
- 3 MGD = Million gallons per day.
- 4 Flow rates shall be determined as specified in Part I.F.2 below.

- D. The discharge shall be free from pollutants in amounts or combinations that:
1. Settle to form bottom deposits that inhibit or prohibit the habitation, growth or propagation of aquatic life;
  2. Cause objectionable odor in the area in which the surface water is located;
  3. Cause off-flavor in aquatic organisms;
  4. Are toxic to humans, animals, plants or other organisms;
  5. Cause the growth of algae or aquatic plants that inhibit or prohibit the habitation, growth or propagation of other aquatic life or that impair recreational uses;
- E. The discharge shall be free from oil, grease and other pollutants that float as debris, foam, or scum; or that cause a film or iridescent appearance on the surface of the water; or that cause a deposit on a shoreline, bank or aquatic vegetation.
- F. Discharge samples taken in compliance with the monitoring requirements specified above shall be discrete samples collected at the outfall using an automated sampling device. The samples shall be collected during the first hour of any discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the end of the previous storm event of at least 0.1 inches in magnitude.
1. For each discharge sample collected, the following information about the storm event that generated the sampled runoff shall be recorded:
    - a. Date(s) of the storm event
    - b. Estimated duration in hours of the storm event
    - c. Rainfall measurements in inches
  2. For each discharge sample collected, the discharge flow rate in gallons per day shall either be recorded using a flow meter or estimated using one of the methods described in the NPDES Stormwater Sampling Guidance Document (EPA 833/B-92-001).
  3. For each discharge sample collected, the date(s) and estimated duration of the discharge, the measured or estimated discharge flow rate, and the estimated total volume of flow shall be recorded on an AZPDES Stormwater Discharge Flow Record (found in Appendix B). The AZPDES Stormwater Discharge Flow Record shall be submitted to ADEQ as specified in Part II.B.2.
- G. Rainfall Monitoring
- For the purposes of this permit, unless a gauge station has been established at the facility, the gauge station used to monitor rainfall shall be that operated by the National Weather Service or the National Oceanographic and Atmospheric Administration nearest to the facility. The permittee may establish a gauge station at the facility, in which case rainfall shall be recorded on a daily basis. A National Weather Service Standard Rain Gauge shall be used.

## PART II – MONITORING AND REPORTING

### A. Sample Collection and Analysis

1. The permittee is responsible for the quality and accuracy of all data required under this permit.
2. Quality Assurance (QA) Manual - The permittee shall keep a QA Manual on site that describes the sample collection and analyses processes. If the permittee collects samples or conducts sample analyses in house, the permittee shall develop a QA Manual that addresses these activities. If a third party collects and/or analyzes samples on behalf of the permittee, the permittee shall obtain a copy of the applicable QA procedures. The QA Manual shall be available for review by ADEQ upon request. The QA Manual shall be updated as necessary to reflect current conditions, and shall describe the following:
  - a. Project Management, including:
    - i. Purpose of sample collection and sample frequency;
    - ii. When and where samples will be collected;
    - iii. How samples will be collected;
    - iv. Laboratory(s) that will perform analyses;
    - v. Any field tests to be conducted (detail methods and specify equipment, including a description of any needed calibrations); and
    - vi. Pollutants or analytes being measured and for each, the permit-specific limits, Assessment Levels, or thresholds, (e.g. the associated detection limits needed.)
  - b. Sample collection procedures including:
    - i. Equipment to be used;
    - ii. Type and number of samples to be collected including QA/QC samples (i.e., background samples, duplicates, and equipment or field blanks);
    - iii. Types, sizes and number of sample bottles needed;
    - iv. Preservatives and holding times for the samples (see methods under 40 CFR 136 or 9 A.A.C. 14, Article 6 or any condition within this permit that specifies a Chain of Custody procedures.
  - c. Specify approved analytical method(s) to be used and include:
    - i. Limits of Detection (LOD) and Limits of Quantitation (LOQs);
    - ii. Required quality control (QC) results to be reported (e.g., matrix spike recoveries, duplicate relative percent differences, blank contamination, laboratory control sample recoveries, surrogate spike recoveries, etc.) and acceptance criteria; and
    - iii. Corrective actions to be taken by the permittee or the laboratory as a result of problems identified during QC checks.
  - d. How the permittee will perform data review; complete DMRs and records used to report results to ADEQ; resolve data quality issues; and identify limitations on the use of the data.
3. Sample collection, preservation and handling shall be performed as described in 40 CFR 136 including the referenced Edition of *Standard Methods for the Examination of Water and Wastewater*, or by procedures referenced in A.R.S. Title 9, Chapter 14 of the Arizona Department of Health Services (ADHS) Laboratory Licensure rules. The permittee shall outline the proper procedures in the QA Manual, and samples taken for this permit must conform to these procedures whether collection and handling is performed directly by the permittee or contracted to a third-party.

4. Analytical requirements

- a. The permittee shall use a laboratory licensed by the ADHS Office of Laboratory Licensure and Certification that has demonstrated proficiency within the last 12 months under R9-14-609, for each parameter to be sampled under this permit. However, this requirement does not apply to parameters which require analysis at the time of sample accordance with A.R.S. 36-495.02(A)(3). (These parameters may include flow, dissolved oxygen, pH, temperature, and total residual chlorine.)
- b. The permittee must utilize analytical methods specified in this permit. If no test procedure is specified, the permittee shall analyze the pollutant using:
  - i. A test procedure listed in 40 CFR 136 which is also approved under A.A.C. R9-14-610;
  - ii. An alternative test procedure approved by EPA as provided in 40 CFR 136 and which is also approved under A.A.C. R9-14-610;
  - iii. A test procedure listed in 40 CFR 136, with modifications allowed by EPA or approved as a method alteration by ADHS under A.A.C. R9-14-610C; or
  - iv. If no test procedure for a pollutant is available under (4)(b)(i) through (4)(b)(iii) above, any Method approved under A.A.C. R9-14-610(B) for wastewater may be used, except the use of field kits is not allowed unless otherwise specified in this permit. If there is no approved wastewater method for a parameter, any other method identified in 9 A.A.C. 14, Article 6 that will achieve appropriate detection and reporting limits may be used for analyses.
- c. For results to be considered valid, all analytical work, including those tests conducted by the permittee at the time of sampling (see Part II.A.4.a), shall meet quality control standards specified in the approved methods.
- d. The permittee shall use analytical methods with a Limit of Quantitation (LOQ) that is lower than the effluent limitations, Assessments Levels, Action Levels, or other water quality criteria, if any, specified in this permit. If all methods have LOQs higher than the applicable water quality criteria, the Permittee shall use the approved analytical method with the lowest LOQ.
- e. The permittee shall use a standard calibration curve when applicable to the method, where the lowest standard point is equal to or less than the LOQ.

5. Metals Analyses

In accordance with 40 CFR 122.45(c), all effluent metals concentrations, with the exception of chromium VI, shall be measured as "total recoverable metals". Discharge Limits and Assessment Levels in this permit, if any, are for total recoverable metals, except for chromium VI for which the levels listed are dissolved.

**B. Reporting of Monitoring Results**

1. The permittee shall report monitoring results on Discharge Monitoring Report (DMR) forms supplied by ADEQ, to the extent that the results may be entered on the forms. The permittee shall submit results of all monitoring required by this permit in a format that will allow direct comparison with the limitations and requirements of this permit. If no discharge occurs during a reporting period, the permittee shall specify "No discharge" on the DMR. The results of all discharge analyses conducted during the monitoring period shall be included in determinations of the monthly average and daily maximums reported on the DMRs if the analyses were by methods specified in Part II.A above, as applicable.

2. DMRs and attachments are to be submitted by the 28th day of the month following the end of a monitoring period. For example, if the monitoring period ends January 31<sup>st</sup>, the permittee shall submit the DMR by February 28<sup>th</sup>. The permittee shall electronically submit all compliance monitoring data and reports using the myDEQ electronic portal provided by ADEQ. The reports required to be electronically submitted include, but are not limited to, the following:
  - a. Discharge Monitoring Reports
  - b. Original copies of laboratory results
  - c. AZPDES discharge flow records
  - d. Method detection limit studies (if applicable)
  - e. Bench sheets or similar documentation for field testing parameters (if applicable)

3. The permittee shall submit the annual SWPPP Compliance Evaluation Report as specified in Part III of this permit to ADEQ at the following address:

ADEQ Surface Water Permits Unit  
Mail Code: 5415B-3  
1110 W. Washington  
Phoenix, AZ 85007

4. If requested to participate, the permittee shall submit the results of the annual NPDES DMR/QA Study to ADEQ and ADHS for all laboratories used in monitoring compliance with this permit by December 31<sup>st</sup> of each year. The permittee shall also conduct any proficiency testing required by the NPDES DMR-QA Study for those parameters listed in the study that the permittee analyzes in house or tests in the field at the time of sampling (these parameters may include pH and total residual chlorine). All results of the NPDES DMR-QA Study shall be submitted to the email and addresses listed below, or submit by any other alternative mode as specified by ADEQ:

Arizona Department of Environmental Quality  
Email: AZPDES@azdeq.gov

Arizona Department of Environmental Quality  
Attn: Office of Laboratory Licensure and Certification  
250 North 17<sup>th</sup> Avenue  
Phoenix, AZ 85007

5. For the purposes of reporting, the permittee shall use the Limit of Quantitation.
6. For parameters with Daily Maximum Limits or Daily Maximum Assessment Levels in this permit, the permittee shall review the results of all samples collected during the reporting period and report as follows:

Table 6 – DMR Reporting Requirements for Daily Maximum Limits and Assessment Levels

For Daily Maximum Limits/Assessment Levels	The Permittee shall Report on the DMR
When the maximum value of any analytical result is greater than or equal to the LOQ	The maximum value of all analytical results
When the maximum value detected is greater than or equal to the laboratory's LOD but less than the LOQ (1)	NODI (Q)
When the maximum value is less than the laboratory's LOD (2)	NODI (B)

**Footnotes**

- 1 Not Quantifiable
- 2 Below Detection

7. For all field testing, or if the information below is not included on the laboratory reports required by Part II.B.2, the permittee shall attach a bench sheet or similar documentation to each DMR that includes, for all analytical results during the reporting period.

- a. the analytical result,
- b. the number or title of the approved analytical method, preparation and analytical procedure utilized by the field personnel or laboratory, and the LOD and LOQ for the analytical method for the parameter, and
- c. any applicable data qualifiers using the most current revision of the Arizona Data Qualifiers (available online at: <http://www.azdhs.gov>)

**C. Twenty-four Hour Reporting of Noncompliance**

The permittee shall orally report any noncompliance which may endanger the environment or human health within 24 hours from the time the permittee becomes aware of the event to:

ADEQ 24 hour hotline at (602) 771-2330

by phone call or voice mail by 9 a.m. on the first business day following the noncompliance. The permittee shall also notify the Surface Water Permits Unit in writing within 5 days of the noncompliance event to [AZPDES@azdeq.gov](mailto:AZPDES@azdeq.gov). The permittee shall include in the written notification: a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and, if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

**D. Monitoring Records**

The permittee shall retain records of the following monitoring information:

- 1. Date, exact location and time of sampling or measurements performed, preservatives used;
- 2. Individual(s) who performed the sampling or measurements;
- 3. Date(s) the analyses were performed;
- 4. Laboratory(s) which performed the analyses;

5. Analytical techniques or methods used;
6. Chain of custody forms;
7. Any comments, case narrative or summary of results produced by the laboratory. These comments should identify and discuss QA/QC analyses performed concurrently during sample analyses and should specify whether analyses met project requirements and 40 CFR 136. If results include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results, sample receipt condition, or holding times and preservation, these records must also be retained.
8. Summary of data interpretation and any corrective action taken by the permittee.

### **PART III – BEST MANAGEMENT PRACTICES**

- A.** The permittee shall continue to implement the Stormwater Pollution Prevention Plan (SWPPP). The permittee shall review the existing SWPPP for the facility and revise it as necessary to ensure that it fully and accurately addresses all the following provisions. Any updates or revisions needed shall be completed and submitted to ADEQ in the subsequent annual report.
- B.** The SWPPP shall include provisions for stormwater management such that all stormwater at the Mission Complex will be controlled through one of the following four methods:
  1. Stormwater runoff will be diverted through berms, channels, or dikes designed to convey the 100-year, 6-hour storm event to containment areas where no discharge of water occurs;
  2. Stormwater runoff will be diverted through berms, channels, or dikes designed to convey the 100-year, 6-hour storm event to containment areas designed to hold the 100-year, 24-hour storm event or in the case of runoff containment structures within the drainage area of Outfall 007H, the 10-year, 24-hour event;
  3. Stormwater run-on (generated from off-site) will be diverted around mining activities to prevent contact with areas disturbed by mining; or
  4. Potential stormwater contaminants will be controlled at the source by capping, removing all exposed mineralized materials, or other reclamation and by stabilizing and protecting surface areas to effectively control erosion or leaching of contaminants.
- C. The SWPPP shall contain the following minimum requirements:**
  - 1. Pollution prevention team.** The SWPPP shall identify individuals at the facility that are members of a Stormwater Pollution Prevention Team who are responsible for assisting the facility management in implementation, maintenance, and revision of the SWPPP. The plan shall clearly identify the responsibilities of each team member. The activities and responsibilities of the team shall address all aspects of the facility's SWPPP.
  - 2. Site Description.** The SWPPP shall include a general description of the site, process operations, hydrology, topography, potential receiving waters, a description of outfall locations and potentially contributing drainage areas to each outfall.
  - 3. Potential pollution sources.** The SWPPP shall include a description of each area of the mine site (e.g. mining/milling areas; access and haul roads; equipment storage; fueling and maintenance areas; or

piles; materials handling areas; outdoor manufacturing, storage, or material disposal areas; chemical and explosives storage areas; waste rock/overburden; topsoil storage areas; waste storage areas; tailings piles; tailings ponds; tailings conveyances) and its potential for pollutants to be present in significant amounts. Areas of the mine site shall be indicated on the site map.

Factors that shall be considered for determining potential pollution include: the mineralogy of the ore, waste rock and native soils; toxicity and quantity of chemicals used, produced or discharged in the area; likelihood of contact with stormwater; vegetation of site; stabilization of site; history of leaks or spills; and characterization data for acid generating materials.

**4. Control of Runoff and Spills**

- a. The SWPPP shall describe existing and planned diversion and containment structures for the control of mine drainage and stormwater combined with mine drainage such that no discharge occurs except during storm events larger than those described in Section B.
- b. The SWPPP shall contain a drainage basin assessment to determine the outline of each basin, and its BMP(s) and designated outfall, or termination (if controlled by evapotranspiration or infiltration). The SWPPP shall describe assumptions and methods used to determine the position of drainage divides and present this data on a site map. The method must include field verification. The SWPPP shall provide calculations that demonstrate the stormwater capacities for all retention basins at the site.
- c. The SWPPP shall include the BMPs utilized to contain spills, and may include BMPs such as grading a road so as to provide containment for spray originating from a failed coupling. The SWPPP shall describe the drainage such that any spills of tailings or process fluids will be directed to sediment ponds or fluid control structures designed to contain the 100-year 24-hour storm event and the methods to be used to clean up spills. The location of contained process fluids and BMPs to control spills or leaks shall be shown on the map. These areas will be made accessible for regular inspections.

**5. Stormwater diversions.** The SWPPP shall indicate the location and the type of stormwater diversions and conveyances (e.g. dikes, swales, curbs, berms, pipe slope drains, subsurface drains, channels, gutters, rolling dips and road slopes) for all areas of the mine.

**6. Stormwater containment controls.** The SWPPP shall describe appropriate BMPs that will be use to control pollutants in stormwater discharges.

**7. Site Map.** The SWPPP shall include site maps that show all features required in the SWPPP, including potential pollution sources, conveyance structures, stormwater controls, mine features, tailings, drainage area boundary lines, outfall or termination points, stormwater monitoring points, and all features described in Section C.2-6, above.

**8. Maintenance of Containment Facilities**

- a. The permittee shall monitor the available surge capacity and freeboard in the process impoundment and all stormwater basins designated as no-discharge quarterly and after rainfall events of over 3 inches in 24 hours. After storm events, the permittee shall take measures as soon as practicable to restore the freeboard necessary in the impoundments to contain the design storm event. Such measures shall be continued by the permittee until adequate freeboard is restored.
- b. The permittee shall assess the siltation of the process ponds and all stormwater basins designated as no-discharge annually and after rainfall events of over 3 inches in 24 hours. The permittee shall take action to remove solids when liquid storage capacity is less than 80% of

the required design volume. The permittee shall take measures to maintain the integrity of containment liners during removal of solids.

- c. The permittee shall establish a maintenance program for pump stations, spare pumps, pipelines, containment structures and standby electrical generators to prevent a spill or discharge of tailings. The permittee shall maintain records for pump station testing and equipment inspections.
  - d. All areas adjacent to pipes transporting tailings and tailings return water will be bermed and/or graded to contain any spill or leak.
- 9. Stormwater source controls.** The SWPPP shall include an assessment of areas where stormwater will be controlled at the source instead of diversion and containment. The SWPPP shall describe BMPs that will be used to stabilize and protect surface areas to effectively control erosion at the source. The BMPs shall, at a minimum, include:
- a. Establishment of an effective, permanent vegetative cover at least equal in extent of cover to natural vegetation or that is necessary to achieve the approved post-mining use.
  - b. Establishment of stable slopes to minimize sideslope erosion or gullies. BMPs for creating stable slopes include grading, berming, contour furrowing, limiting slope length, and creating stable slope shapes (concave slopes and complex slopes instead of convex and simple).
  - c. Regulating channel velocity through diversions, grading, rip rap, or other permanent control measure to minimize erosion.
  - d. Demonstration through monitoring that runoff from reclaimed lands meets all applicable surface water quality standards.
- 10. Site Inspection and Maintenance.** All BMPs identified in the SWPPP shall be maintained in effective operating condition. The SWPPP shall include a procedure for routine inspection of stormwater diversions, stormwater controls, and sediment and erosion controls. The SWPPP shall include inspection and maintenance procedures for storage/containment ponds to assess available freeboard and surge capacity, maintenance of ponds, containment structures, pipelines, pump stations; and structural repair of berms, ditches, dikes, dams, etc.
- a. The BMPs identified in the SWPPP shall be inspected at least quarterly and after significant precipitation events.
  - b. The SWPPP shall describe a method to implement repairs to facility deficiencies found during regular maintenance inspections at all stormwater facilities. If site inspections identify BMPs that are not operating effectively, maintenance shall be performed before the next anticipated storm event, or as necessary to maintain the continued effectiveness of stormwater controls. If maintenance prior to the next anticipated storm event is impracticable, maintenance shall be scheduled and accomplished as soon as practicable.
  - c. Visual observations of the tailings reclaim water pipelines for leaks and spills shall occur on a daily basis. All repairs deemed necessary based on any observed leaks the findings of the inspections shall be completed as soon as practicable, and all spills and leaks shall be cleaned up in a timely manner.
  - d. Records of inspections shall be maintained onsite. The permittee shall implement and maintain an effective system for recordkeeping and tracking of follow-up corrective actions needed and taken in response to inspections.

11. **Employee Training.** The permittee shall ensure that an effective training program is developed and implemented to inform personnel responsible for stormwater management or implementing activities addressed in the SWPPP. The SWPPP shall include a description of this training program. Training shall address topics such as goals of the SWPPP, good housekeeping and materials management practices, spill prevention and response procedures, and stormwater monitoring requirements. The permittee shall hold this training at least annually and the training agenda and records of employee attendance must be maintained as part of the SWPPP.

**D. Annual SWPPP Review, Compliance Evaluation, and Annual Report**

1. The permittee shall review the SWPPP on an annual basis and update the plan as necessary. The permittee shall amend the SWPPP whenever a) there is a change in design, construction, operation, or maintenance at the facility which may have a significant effect on the discharges, or potential discharges, authorized by this permit; or b) monitoring results and/or an inspection by the permittee or ADEQ indicate that the SWPPP is ineffective in controlling storm water discharge quality.
2. The permittee shall conduct a comprehensive site compliance evaluation at least annually to determine whether the BMPs and pollution prevention measures are adequate and properly implemented or whether additional control measures are needed. Structural stormwater management measures, sediment and erosion control measures, and other structural pollution prevention measures identified in the SWPPP shall be observed to ensure that they are operating correctly. A visual evaluation of all equipment needed to implement the plan, including spill response equipment, shall be made.

Based on the results of the evaluation, the permittee shall revise the stormwater pollution prevention measures and controls identified in the SWPPP as appropriate within 2 weeks after the evaluation. The permittee shall implement any changes to the plan within 12 weeks after the evaluation.

3. The permittee shall make a report summarizing the scope of the annual site compliance evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the SWPPP, and actions taken per Parts III.C. The report shall identify any incidents of noncompliance and recommendations for revisions of the SWPPP. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the SWPPP and Part III of this permit. The report shall be submitted to ADEQ on an annual basis and due on the anniversary of the effective date of this permit as specified in Part II.B.3. The report shall also be retained as part of the SWPPP for at least 3 years from the date of evaluation. The report shall be signed in accordance with Part 12 of the attached "Standard AZPDES Permit Conditions," dated February 2, 2004 (Signatory Requirements) and submitted to the address specified in Part II.B.3.

The annual report shall include a certification that the SWPPP has been reviewed, remains accurate or has been revised as necessary, and that the permittee is implementing the SWPPP and the stormwater provisions required by this permit.

**E. SWPPP Recordkeeping Requirements**

1. The permittee shall retain a copy of the current SWPPP on site at the facility or locally available for use by any agency with regulatory control over stormwater discharges at the time of an inspection by such authority. A record of SWPPP revisions, including dates, authorizing personnel, and summaries of major changes to each revision, shall be maintained with the current SWPPP. A copy of the SWPPP and record of revisions shall be provided to ADEQ upon request.

2. The permittee shall maintain all logs, inspection and maintenance reports, and other records required by the SWPPP or this permit on file at the facility for three years where they shall be available for inspection by ADEQ and any other regulating authority.

## **PART IV – SPECIAL CONDITIONS**

### **A. Special Study**

ASARCO Mission Complex has requested to remove internal monitoring point 005K and Outfall 007H. ASARCO stated the source of the stormwater representative of the discharge does not come into contact with any tailings or mine workings from the ASARCO Mission mine site. ASARCO states there are multiple inputs of stormwater in the wash coming from other drainage areas not associated with Mission Complex that are contributing to the pollutants detected in the monitoring data for Outfall 007.

In order to affirmatively conclude the source of pollutants are not attributed to the Mission Complex site ASARCO will conduct a special site study and submit it to ADEQ. ADEQ will review the results of the study and if ASARCO demonstrates the Mission Complex site is not contributing any pollutant to outfall 007, ADEQ can remove the outfalls as requested.

### **B. Storm Water Exemption**

1. If Outfall 003G has an overflow as a result of precipitation, a discharge shall be allowed if the following conditions are met:
  - a. 40 CFR 440.131(b)(1) states the containment pond at ASARCO Mission Complex facility are designed, constructed and maintained to contain the maximum volume of wastewater resulting from a 10-year, 24-hour storm event. The stormwater containment structure in place is located at ASARCO Mission Complex retention basin (RB M-T67-19). This retention basin is designed to contain 3.3 acre/ft, constructed and maintained to contain the volume associated with a 100-year, 24-hour storm event and therefore meets this condition.
  - b. ASARCO Mission Complex takes all reasonable steps to maintain treatment of the wastewater and minimize the amount of overflow. The reasonable steps include, but are not limited to, the following: contain the maximum volume of mine site stormwater generated by a 100-year, 24-hour storm event in RB M-T67-19; high capacity pump back system.
  - c. ASARCO Mission Complex provides notification of such discharges within 30 days to ADEQ at the address listed under Part II.B.3 of this permit. The notification shall contain a report documenting the reasonable steps ASARCO Mission Complex made to minimize the amount of overflow.
  - d. The storm exemption is designed to provide an affirmative defense to an enforcement action, and as such, the permittee has the burden of demonstrating to ADEQ and/or EPA that all of the above conditions have been met. The discharge limits in Table 1a. shall be met if a discharge were to occur through Outfall 003G and 004I.
2. If Outfall 004I has an overflow as a result of precipitation, a discharge shall be allowed if the following conditions are met:

- a. 40 CFR 440.131(b)(1) states the containment pond at ASARCO Mission Complex facility are designed, constructed and maintained to contain the maximum volume of wastewater resulting from a 10-year, 24-hour storm event. The stormwater containment structures in place is located at ASARCO Mission Complex retention basin (RB M-T67-21). This retention basin is designed to contain 8.2 acre/ft, constructed and maintained to contain the volume associated with a 100-year, 24-hour storm event and therefore meets this condition.
- b. ASARCO Mission Complex takes all reasonable steps to maintain treatment of the wastewater and minimize the amount of overflow. The reasonable steps include, but are not limited to, the following: contain the maximum volume of mine site stormwater generated by a 100-year, 24-hour storm event in RB M-T67-19; high capacity pump back system.
- c. ASARCO Mission Complex provides notification of such discharges within 30 days to ADEQ at the address listed under Part II.B.3 of this permit. The notification shall contain a report documenting the reasonable steps ASARCO Mission Complex made to minimize the amount of overflow.
- d. The storm exemption is designed to provide an affirmative defense to an enforcement action, and as such, the permittee has the burden of demonstrating to ADEQ and/or EPA that all of the above conditions have been met. The discharge limits in Table 1a. shall be met if a discharge were to occur through Outfall 003G and 004I.

**C. Reopener**

This permit may be modified per the provisions of A.A.C. R18-9-B906, and R18-9-A905 which incorporates 40 CFR Part 122. This permit may be reopened based on newly available information; to add conditions or limits to address demonstrated effluent toxicity; to implement any EPA-approved new Arizona water quality standard; or to re-evaluate reasonable potential (RP), if Assessment Levels in this permit are exceeded.

**Appendix A - Part A: Acronyms**

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
EQ	Exceptional Quality (biosolids)
AZPDES	Arizona Pollutant Discharge Elimination System
A.R.S.	Arizona Revised Statutes
CFR	Code of Federal Regulations
CFU	Colony Forming Units
Director	The Director of ADEQ or any authorized representative thereof
DMR	Discharge Monitoring Report
EPA	The U.S. Environmental Protection Agency
kg/day	Kilograms per day
MGD	Million Gallons per Day
mg/L	Milligrams per Liter, also equal to parts per million (ppm)
MPN	Most Probable Number
NPDES	National Pollutant Discharge Elimination System
PFU	Plaque-Forming Unit
QA	Quality Assurance
SSU	Sewage Sludge Unit
TBEL	Technology-based Effluent Limitation
µg/L	Micrograms per Liter, also equal to parts per billion (ppb)
WQBEL	Water quality-based Effluent Limitation

**Appendix A - Part B: Definitions**

Daily Maximum Concentration Limit	The maximum allowable discharge of a pollutant in a calendar day as measured on any single discrete sample or composite sample.
Daily Maximum Mass Limit	The maximum allowable total mass of a pollutant discharged in a calendar day.
Discrete or Grab Sample	An individual sample of at least 100 mL collected from a single location, or over a period of time not exceeding 15 minutes.
Hardness	The sum of the calcium and magnesium concentrations, expressed as calcium carbonate (CaCO <sub>3</sub> ) in milligrams per liter.
Limit of Quantitation (LOQ)	The minimum levels, concentrations, or quantities of a target variable such as an analyte that can be reported with a specific degree of confidence. The calibration point shall be at or below the LOQ. The LOQ is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all of the method-specified sample weights, volumes, and processing steps have been followed.
Limit of Detection (LOD)	An analyte and matrix-specific estimate of the minimum amount of a substance that the analytical process can reliably detect with a 99% confidence level. This may be laboratory dependent and is developed according to R9014-615(C)(7).
Method Detection Limit (MDL)	See LOD
Mixing Zone	An area where an effluent discharge undergoes initial dilution and may be extended to cover the secondary mixing in the ambient waterbody. A mixing zone is an allocated impact zone where water quality criteria can be exceeded as long as acutely toxic conditions are prevented.
Monthly or Weekly Average Concentration Limit	Other than for bacteriological testing, means the highest allowable average calculated as an arithmetic mean of consecutive measurements made during calendar month or week, respectively. The "monthly or weekly average concentration limit" for <i>E. coli</i> bacteria means the highest allowable average calculated as the geometric mean of a minimum of four (4) measurements made during a calendar month or week, respectively. The geometric mean is the nth root of the product of n numbers. For either method (CFU or MPN), when data are reported as "0" or non-detect then input a "1" into the calculation for the geometric mean.
No Observed Effect Concentration (NOEC)	The highest tested concentration of effluent or toxicant, that causes no observable adverse effect on the test organisms (i.e., the highest concentration of toxicant at which the values for the observed responses are <u>not</u> statistically significant different from the controls).
Pathogen	A disease-causing organism.
Runoff	Rainwater, leachate, or other liquid that drains over any part of a land surface and runs off of the land surface.
Significant Difference	Defined as statistically significant difference (e.g., 95% confidence level) in the means of two distributions of sampling results.
Submit	Used in this permit, means post-marked, documented by other mailing receipt, or hand-delivered to ADEQ.

**Appendix B - AZPDES Discharge Flow Record**

ASARCO LLC, Mission Complex – AZ0024597			
Discharge to Unnamed Tributary in the Santa Cruz Basin At:			
<b>Outfall No:</b>			
<b>Location:</b>			
<b>Month:</b>		<b>Year:</b>	
<b>Date:</b>	<b>Flow Duration <sup>(1)</sup> (Total hours per day)</b>	<b>Flow Rate <sup>(2)</sup> (Total MGD per day)</b>	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
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23			
24			
25			
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30			
31			
<b>Comment:</b>			

**Footnotes**

- 1 Total time of discharge in hours per day. If actual time is not available, use an estimate of flow duration.
- 2 Report flow discharge in MGD. If no discharge occurs on any given day, report 'ND' for the flow for that day.

## Appendix C - Standard AZPDES Permit Conditions & Notifications

(Updated as of February 2, 2004)

1. Duty to Reapply – [R18-9-B904(C)]  
Unless the Permittee permanently ceases the discharging activity covered by this permit, the Permittee shall submit a new application 180 days before the existing permit expires
2. Applications – [R18-9-A905(A)(1)(C) which incorporates 40CFR 122.22]
  - a. All applications shall be signed as follows:
    - i. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
      - A. A president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy-or decision-making functions for the corporation, or
      - B. The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
    - ii. For partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
    - iii. For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
  - b. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this Section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    - i. The authorization is made in writing by a person described in paragraph (a) of this section;
    - ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,
    - iii. The written authorization is submitted to the Director.
  - c. Changes to Authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
  - d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

*I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

3. Duty to Comply - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(a)(i) and A.R.S. §49- 262, 263.01, and 263.02.]
  - a. The Permittee shall comply with all conditions of this permit and any standard and prohibition required under A.R.S. Title 49, Chapter 2, Article 3.1 and A.A.C. Title 18, Chapter 9, Articles 9 and 10. Any permit noncompliance constitutes a violation of the Clean Water Act; A.R.S. Title 49, Chapter 2, Article 3.1; and A.A.C. Title 18, Chapter 9, Articles 9 and 10, and is grounds for enforcement action, permit termination, revocation and reissuance, or modification, or denial of a permit renewal application.
  - b. The issuance of this permit does not waive any federal, state, county, or local regulations or permit requirements with which a person discharging under this permit is required to comply.
  - c. The Permittee shall comply with the effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Clean Water Act within the time provided in the regulation that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.
  - d. Civil Penalties. A.R.S. § 49-262(C) provides that any person who violates any provision of A.R.S. Title 49, Chapter 2, Article 3.1 or a rule, permit, discharge limitation or order issued or adopted under A.R.S. Title 49, Chapter 2, Article 3.1 is subject to a civil penalty not to exceed \$25,000 per day per violation.
  - e. Criminal Penalties. Any a person who violates a condition of this permit, or violates a provision under A.R.S. Title 49, Chapter 2, Article 3.1, or A.A.C. Title 18, Chapter 9, Articles 9 and 10 is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which may include the possibility of fines and/or imprisonment.
4. Need to Halt or Reduce Activity Not a Defense – [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(c)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
5. Duty to Mitigate - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(d)]

The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
6. Proper Operation and Maintenance - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(e)]

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
7. Permit Actions - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(f)]

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

8. Property Rights - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(g)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Duty to Provide Information - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(h)]

The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

10. Inspection and Entry [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(i)]

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and such other documents as may be required by law, to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms of the permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring equipment or control equipment), practices or operations regulated or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by A.R.S. Title 49, Chapter 2, Article 3.1, and A.A.C. Title 18, Chapter 9, Articles 9 and 10, any substances or parameters at any location

11. Monitoring and Records - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(j)]

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application, except for records of monitoring information required by this permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Director at any time.
- c. Records of monitoring information shall include:
  - i. The date, exact place and time of sampling or measurements;
  - ii. The individual(s) who performed the sampling or measurements;
  - iii. The date(s) the analyses were performed;
  - iv. The individual(s) who performed the analyses;
  - v. The analytical techniques or methods used; and
  - vi. The results of such analyses.
- d. Monitoring must be conducted according to test procedures specified in this permit. If a test procedure is not specified in the permit, then monitoring must be conducted according to test procedures approved under A.A.C. R18-9-A905(B) including those under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 (for sludge).

- e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both for first conviction. For a second conviction, such a person is subject to a fine of not more than \$20,000 per day of violation, or imprisonment for not more than four years, or both.

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit is subject to the enforcement actions established under A.R.S. Title 49, Chapter 2, Article 4, which includes the possibility of fines and/or imprisonment.

12. Signatory Requirement - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(k)]
  - a. All applications, reports, or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22 incorporated at R18-9-A905(A)(1)(c))
  - b. The CLEAN WATER ACT provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four years, or both.
13. Reporting Requirements - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(l)]
  - a. Planned changes. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations of additions to the permitted facility. Notice is required only when:
    - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b) (incorporated by reference at R18-9-A905(A)(1)(e)); or
    - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1) (incorporated by reference at R18-9-A905(A)(3)(b)).
    - iii. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
  - b. Anticipated noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
  - c. Transfers. (R18-9-B905) This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under Arizona Revised Statutes and the Clean Water Act.
  - d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.
    - i. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.
    - ii. If the Permittee monitors any pollutant more frequently than required by the permit, then the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR, or sludge reporting form specified by the Director.

- iii. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.
    - e. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
    - f. Twenty-four hour reporting.
      - i. The Permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
      - ii. The following shall be included as information which must be reported within 24 hours under this paragraph.
        - A. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(g) which is incorporated by reference at R18-9-A905(A)(3)(a))
        - B. Any upset which exceeds any effluent limitation in the permit.
        - C. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g) which is incorporated by reference at R18-9-A905(A)(3)(d))
    - g. Other noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs (d), (e), and (f) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (f) of this section.
    - h. Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.
14. Bypass - [R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(m)]
  - a. Definitions
    - i. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
    - ii. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
  - b. Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (c) and (d) of this section.
  - c. Notice.
    - i. Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of bypass.
    - ii. Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in paragraph (f)(2) of section 13 (24-hour notice).

- d. Prohibition of bypass.
  - i. Bypass is prohibited, and the Director may take enforcement action against a Permittee for bypass, unless:
    - A. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
    - B. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
    - C. The Permittee submitted notices as required under paragraph (c) of this section.
  - ii. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (d)(1) of this section.
15. Upset - [A.R.S. §§49-255(8) and 255.01(E), R18-9-A905(A)(3)(a) which incorporates 40 CFR 122.41(n)]
  - a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
  - b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (c) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
  - c. Conditions necessary for a demonstration of upset. A Permittee who wishes to establish the affirmative defenses of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
    - i. An upset occurred and that the Permittee can identify the cause(s) of the upset;
    - ii. The permitted facility was at the time being properly operated; and
    - iii. The Permittee submitted notice of the upset as required in paragraph (f)(2) of Section 13 (24-hour notice).
    - iv. The Permittee has taken appropriate measure including all reasonable steps to minimize or prevent any discharge or sewage sludge use or disposal that is in violation of the permit and that has a reasonable likelihood of adversely affecting human health or the environment per A.R.S. § 49-255.01(E)(1)(d).
  - d. Burden of proof. In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.
16. Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers - [R18-9-A905(A)(3)(b) which incorporates 40 CFR 122.42(a)]

In addition to the reporting requirements under 40 CFR 122.41(l) (which is incorporated at R18-9-A905(A)(3)(a)), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

- i. One hundred micrograms per liter (100 µg/l);
  - ii. hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
  - iii. Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7) (which is incorporated at R18-9-A905(A)(1)(b)); or
  - iv. The level established by the Director in accordance with 40 CFR 122.44(f) (which is incorporated at R18-9-A905(A)(3)(d)).
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
- i. Five hundred micrograms per liter (500 µg/l);
  - ii. One milligram per liter (1 mg/l) for antimony;
  - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7)(which is incorporated at R18-9-A905(A)(1)(b));
  - iv. The level established by the Director in accordance with 40 CFR 122.44(f) (which is incorporated at R18-9-A905(A)(3)(d)).

17. Publicly Owned Treatment Works - [R18-9-A905(A)(3)(b) which incorporates 40 CFR 122.42(b)]

This section applies only to publicly owned treatment works as defined at ARS § 49-255(5).

- a. All POTW's must provide adequate notice to the Director of the following:
- i. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the CLEAN WATER ACT if it were directly discharging those pollutants; and
  - ii. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
  - iii. For the purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharge from the POTW.

Publicly owned treatment works may not receive hazardous waste by truck, rail, or dedicated pipe except as provided under 40 CFR 270. Hazardous wastes are defined at 40 CFR 261 and include any mixture containing any waste listed under 40 CFR 261.31 - 261.33. The Domestic Sewage Exclusion (40 CFR 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a publicly owned treatment works and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

18. Reopener Clause - [R18-9-A905(A)(3)(d) which incorporates 40 CFR 122.44(c)]

This permit shall be modified or revoked and reissued to incorporate any applicable effluent standard or limitation or standard for sewage sludge use or disposal under sections 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 405(d) which is promulgated or approved after the permit is issued if that effluent or sludge standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant or sludge use or disposal practice not limited in the permit.

19. Privately Owned Treatment Works - [R18-9-A905(A)(3)(d) which incorporates 40 CFR 122.44]

This section applies only to privately owned treatment works as defined at 40 CFR 122.2.

- a. Materials authorized to be disposed of into the privately owned treatment works and collection system are typical domestic sewage. Unauthorized material are hazardous waste (as defined at 40 CFR Part 261), motor oil, gasoline, paints, varnishes, solvents, pesticides, fertilizers, industrial wastes, or other materials not generally associated with toilet flushing or personal hygiene, laundry, or food preparation, unless specifically listed under "Authorized Non-domestic Sewer Dischargers" elsewhere in this permit.
  - b. It is the Permittee's responsibility to inform users of the privately owned treatment works and collection system of the prohibition against unauthorized materials and to ensure compliance with the prohibition. The Permittee must have the authority and capability to sample all discharges to the collection system, including any from septic haulers or other unsewered dischargers, and shall take and analyze such samples for conventional, toxic, or hazardous pollutants when instructed by the permitting authority. The Permittee must provide adequate security to prevent unauthorized discharges to the collection system.
  - c. Should a user of the privately owned treatment works desire authorization to discharge non-domestic wastes, the Permittee shall submit a request for permit modification and an application, pursuant to 40 CFR 122.44(m), describing the proposed discharge. The application shall, to the extent possible, be submitted using ADEQ Forms 1 and 2C, unless another format is requested by the permitting authority. If the privately owned treatment works or collection system user is different from the Permittee, and the Permittee agrees to allow the non-domestic discharge, the user shall submit the application and the Permittee shall submit the permit modification request. The application and request for modification shall be submitted at least 6 months before authorization to discharge non-domestic wastes to the privately owned treatment works or collection system is desired.
20. Transfers by Modification - [R18-9-B905]
- Except as provided in section 21, a permit may be transferred by the Permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made under R18-9-B906, to identify the new Permittee and incorporate such other requirements as may be necessary.
21. Automatic Transfers [R18-9-B905]
- An alternative to transfers under section 20, any AZPDES permit may be automatically transferred to a new Permittee if:
- a. The current Permittee notifies the Director at least 30 days in advance of the proposed transfer date;
  - b. The notice includes a written agreement between the existing and new Permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
  - c. The Director does not notify the existing Permittee and the proposed new Permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under R18-9-B906(B).
22. Minor Modification of Permits [R18-9-B906(B)]
- Upon the consent of the Permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following public notice procedures under R18-9-A907 or A908. Minor modifications may only:
- a. Correct typographical errors;
  - b. Update a permit condition that changed as a result of updating an Arizona water quality standard;
  - c. Require more frequent monitoring or reporting by the Permittee;
  - d. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

- e. Allow for a change in ownership or operational control of a facility where the Director determines that no other change in their permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee has been submitted to the Director.
  - f. Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation prior to discharge under 40 CFR 122.29 (which is incorporated by reference in R18-9-A905(A)(1)(e)).
  - g. Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with the permit limits.
  - h. Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 and 403.18 as enforceable conditions of the POTW's permit.
  - i. Annex an area by a municipality.
23. Termination of Permits - [R-9-B906(C)]
- The following are causes for terminating a permit during its term, or for denying a permit renewal application:
- a. Noncompliance by the Permittee with any condition of the permit;
  - b. The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the Permittee's misrepresentation of any relevant facts at any time;
  - c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination; or
  - d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit (for example, a plant closure or termination of discharge by connection to a POTW).
24. Availability of Reports - [Pursuant to A.R.S § 49-205]
- Except for data determined to be confidential under A.R.S § 49-205(A), all reports prepared in accordance with the terms of this permit shall be available for public inspection at ADEQ offices. As required by A.R.S. § 49-205(B) and (C), permit applications, permits, and effluent data shall not be considered confidential.
25. Removed Substances - [Pursuant to Clean Water Act Section 301]
- Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.
26. Severability - [Pursuant to A.R.S § 49-324(E)]
- The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and remainder of this permit, shall not be affected thereby.
27. Civil and Criminal Liability - [Pursuant to A.R.S § 49-262, 263.01, and 263.02]
- Except as provided in permit conditions on "Bypass" (Section 14) and "Upset" (Section 15), nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance.
28. Oil and Hazardous Substance Liability - [Pursuant to Clean Water Act Section 311].
- Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.
29. State or Tribal Law - [Pursuant to R 18-9-A904 (C)].

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.

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